

## Case 3223

***Unio ochraceus* Say, 1817 (currently *Ligumia ochracea*; Mollusca, Bivalvia): proposed precedence of the specific name over *Mytilus fluviatilis* Gmelin, 1791**

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**Abstract.** The purpose of this application, under Articles 23.9.3 and 81.2.3 of the Code, is to conserve the widely used specific name of *Unio ochraceus* Say, 1817 (currently *Ligumia ochracea*) for the American freshwater mussel (tidewater mucket) (family UNIONIDAE) by giving it precedence over the little used senior subjective synonym *Mytilus fluviatilis* Gmelin, 1791.

**Keywords.** Nomenclature; taxonomy; Mollusca; UNIONIDAE; *Ligumia ochracea*; *Mytilus fluviatilis*; tidewater mucket; fresh water mussel; clam; America.

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1. Lister (1685, pl. 157, fig. 12) described a freshwater clam (family UNIONIDAE) that is today commonly called the tidewater mucket or American freshwater mussel (see Turgeon et al., 1998, p. 35). Lister depicted the external left valve and named the clam 'Pectunculis fluviatilibus'. He gave the locality as 'Vir' [Virginia] and described the clam as 'pectunculus tenuis, subruher ex internâ parte, rostro recuruo'. The last known repository of Lister's material was Oxford University Museum, although it now appears to have been lost (Wilkins, 1953; Dance, 1966, p. 292; J.B. Davies, Oxford University Museum, personal communication).

2. Gmelin (1791, p. 3359) was the first to give a name to the tidewater mucket after 1 January 1758. He named it *Mytilus fluviatilis*, mistakenly placing the species in the marine genus *Mytilus* Linnaeus, 1758 even though he listed its habitat as 'habitat in Europae aquis delcibus' [European freshwater]. Neither figures nor plates were provided with the description. Gmelin (1791, p. 3359) equated *Mytilus fluviatilis* with 'Pectunculis fluviatilibus' as illustrated by Lister (1685, pl. 157, fig. 12).

3. Despite the seniority of the name *Mytilus fluviatilis*, the majority of works over the past two centuries have used the name *Unio ochraceus* Say, 1817 (pl. 2, fig. 8) for the tidewater mucket (see Morrison, 1974, pp. 38–39). The nominal species has been placed in the genera *Lampsilis* and *Leptodea* and most recently in the genus *Ligumia* (see Smith, 2000). Over fifty-six works published after 1817 cite *Ligumia ochracea* as the valid name (e.g. Gould, 1870, pp. 173–174; Johnson, 1947, pp. 150–156, pl. 20; Johnson & Baker, 1973, pp. 163–164; Turgeon et al., 1998, p. 35). The additional list of references has been submitted to the Commission Secretariat. This meets the requirements of Article 23.9.1.2 for automatic conservation of the name *L. ochracea*. However the senior synonym, *L. fluviatilis*, has been used for the fresh water mucket before 1899 (e.g. Dillwyn, 1823, p. 13); and (with reference to Article 23.9.2) since 1899 (e.g. Morrison, 1974, pp. 38–39). Johnson (1947, p. 150) recognized the seniority

of Gmelin's name *fluviatilis* but rejected it on the assumption that Gmelin (1791, p. 1359) only referred to Lister's (1685, pl. 855, fig. 12) figure as one that 'approximated the European' shell Gmelin was describing. Repeated usage of the name *fluviatilis* by subsequent authors (e.g. Gould, 1841, pp. 112–113, fig. 80; Linsley, 1845, p. 277; Simpson, 1914, pp. 386–387; Ortmann, 1919, p. 160; Frierson, 1927, p. 16 and Haas, 1969, pl. 367) can all be attributed to Isaac Lea's (1838, p. 51, pl. 15, fig. 46) erroneous synonymizing of *Mytilus fluviatilis* with another eastern American freshwater mussel, *Pyganodon cataracta* (Say, 1817). Usage of the senior synonym, *Ligumia fluviatilis*, prevents automatic conservation of the junior synonym, *L. ochracea*, under Article 23.9.2. Therefore, in the interests of nomenclatural stability, this application is brought to the Commission under Articles 23.9.3 and 81.2.3 of the Code. Commission approval will mean that if the two names are considered to be synonyms, *L. ochracea* becomes the valid name for the taxon.

4. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the name *ochraceus* Say, 1817, as published in the binomen *Unio ochraceus*, precedence over the name *fluviatilis* Gmelin, 1791, as published in the binomen *Mytilus fluviatilis*, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Specific Names in Zoology the following names:
  - (a) *ochraceus* Say, 1817, as published in the binomen *Unio ochraceus*, with the endorsement that it is to be given precedence over the name *fluviatilis* Gmelin, 1791, as published in the binomen *Mytilus fluviatilis*, whenever the two are considered to be synonyms;
  - (b) *fluviatilis* Gmelin, 1791, as published in the binomen *Mytilus fluviatilis*, with the endorsement that it is not to be given priority over the name *ochraceus* Say, 1817, as published in the binomen *Unio ochraceus*, whenever the two are considered to be synonyms.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*: they should be sent to the Executive Secretary, I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).



*Pectunculus fluvialibus* (Lister. 1685, pl. 157, fig. 12).